Saving, printing and RIBing

The only format molecules can currently be saved in is the Alchemy file format. This will change in later versions.

Printing only works in certain modes. To print stick drawings, use the quick render mode. To print space filling or ball&stick models, use the smooth renderer. The sticks in the ball and stick model won't be printed.

Since printing uses the photorealistic renderer, printouts take quite a while. I would reccomend making the molecule display window much smaller before printing. If you don't it could take as much as 15 or 20 minutes to print. Also, printouts won't appear in the printer queue until rendering is complete, so don't print multiple copies thinking it isn't working. The photorealistic renderer doesn't render lines, so the Ball and Stick model won't produce what you see on the screen.

RIB files can be generated for use with other programs. You can generate a RIB file for the current display via the document menu, or by

selecting the RIBIT button in the Render Control panel. The RIB files will be set to generate 24 bit RGB tiffs. These tiffs will, by default, have no alpha (transparency) channel. You will have to modify the 1st line of the RIB file to say "rgba" instead of "rgb" if you want alpha.

A second button is provided for generating high quality animations of the spinning molecule. To use it, create a directory called <file>.anim somewhere. Then select the SPINIT button. Go to that directory and enter <file> as the filename. A sequence of 20 (currently this number is hardcoded in the program) RIB files will be created as ψ is varied. It will display the various views on the screen as it creates the RIB files.

Then, exit the program, and do the following in a csh or zsh window:

```
cd <file>.anim
foreach i (*.rib)
time prman $i
end
```

This will generate 20 tiff images in this directory. The time command will tell you how long each image took to render when its done. You will also receive a warning message for each image which you can safely ignore. Once it's done you can use any movie viewing program to view the animation. I know several PD programs exist which like this anim format.

You can now also generate images with the POV raytracer. The POVit button will create a POV scene file. The file "header.dat" is automatically appended to the front of the POV file, so you can make changes in the backround scene. To change the appearance of the atoms (beyond color and size), you'll have to dig into the source code (D3View.m). POV is much slower than RM but it's more flexible, being a true raytracer. You can obtain POV from wuarchive.wustl.edu in /graphics/graphics/ray. It's a truely excellent program. My compliments to the authors!